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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/814,638

03/22/2001

Harold Mattice

403450

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27717 7590 12/26/2007
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EXAMINER

NGUYEN, DAT

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/814,638

Applicant(s)

MATTICE ET AL.

Examiner

Dat T. Nguyen

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13,14,16-22,24,27-32 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13,14,16-22,24,27-32 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/25/2007 has been entered.

Response to Amendment

This office action is responsive to the amendments filed on 10/25/2007 in which applicant amends claims 13, 24 and 31, cancels claims 1-12, 15, 23, 25, 26 and 33, and responds to claim rejections. Claims 13, 14, 16-22, 24, 27-32 and 34-36 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 14, 16-22, 24, 27-32 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gomez et al. (US 5,890,715) (hereinafter "Gomez") in view of Molloy et al. (US 3,675,196) (hereinafter "Molloy").

Regarding claims 13, 24 and 31:

Gomez teaches a plurality of linkable gaming machines individually accessed, arranged in a string of N nodes (figures 5a and 5b and the detailed description thereof), with each node including up to M of the devices (lights, sounds, 4:55-60, synchronized ball release, 8:55-60).

The host controller directly connected to only the first end of the string and having a data out terminal (the machines automatically designate one of them as a master machine being the host controller 5:25-35 and 7:1-30).

A plurality of local controllers respectively associated with the nodes, each local controller having a data in terminal and a data out terminal and including a M-bit shift register with the register positions respectively connected to device output terminals to which the devices of the associated node may respectively be connected (figure 5b and the detailed description thereof, 5:50-67, UART interfaces comprise shift registers);

The data out terminal of the host controller being connected to the data in terminal of the first node and the data in terminal of each of the other nodes being connected to the data out terminal of the preceding node in the string so that the string of nodes provides a (MxN)-bit shift register (the daisy chain connection of the machines in figure 5b and the detailed description thereof along with the discussion of the UART interfaces cited above);

However, Gomez fails to explicitly recite the specifics of a serial digital data stream including MxN bits followed by a strobe indicator so that the bits are sequentially loaded into and respectively fill positions of the bit register. However in a related patent, Molloy teaches the use of shift registers in a position based system wherein a master

controller communicates with local controllers and transmits pulse trains containing sets of data bits in sequence to receivers at all the associated devices wherein each of the devices (lights) is controlled by a specific bit in a specific set of bits transmitted by the master controller (abstract, 8:39-9:4, 11:60-12:30). Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the shift register means of Molloy with the game system of Gomez in order to synchronize the lights on each of the pinball machines with one another (Gomez 4:56-57).

Further regarding claim 24, the register positions inherently must indicate the status of the devices if they are to control the status of the devices. For instance if the light is to be on, then the shift register must indicate such in order to control the light since each position in the register corresponds to the operation of a light (on or off). Furthermore, as discussed above, the shift register is a positioned based system as applicant has claimed and argued in previous responses.

Further regarding the power line connected to the controllers and a common line, Gomez states that RS232 cables are used to connect the pinball machines to one another (4:24-35). RS232 cables are known to contain power lines.

Regarding claim 14, wherein each of the local controllers is a microcontroller (5:7).

Regarding claims 16 and 27, wherein the serial digital data comprises binary data (Molloy 2:50-75). Motivational statement can be found above since the binary data transmission is included in the shift register system to be combined.

Regarding claim 17, see discussion of the rejection of claim 13 above. The lights are controlled and the lights are position based wherein each bit of the shift register corresponds to the state/control of a light.

Regarding claims 18 and 28, wherein at least one device is an LED. The prior art fails to explicitly recite the use of LEDs as lights, however they do disclose the use of lights and controlling means for said lights. It is notoriously well known in the art to use LEDs as a replacement for standard lights or as a lighting means. Therefore it would have been obvious to one of ordinary skill in the art to use LEDs as lighting means since it is also well known that LEDs consume less power and are more durable than conventional light bulbs.

Regarding claim 19, please refer to the discussion above regarding claim 13, 17, 24 and 31. The system of Molloy is a position based system.

Regarding claim 20, lights can be considered switches, on or off. And lights are on of the devices. Furthermore, Gomez teaches the games themselves are to be synchronized and therefore there are plenty of switches in a pinball game such as the ball release, paddles, etc (4:48-60).

Regarding claim 21, If the system is to control each element with a bit in a shift register and the system comprises M devices then the signal must include at least M bits as taught by Molloy (8:39-45). Motivation statement can be found above.

Regarding claim 22, the M bits are position based and address the status of each connected device.

Regarding claim 29, wherein the contents of the bit register is returned to the data in terminal of the host controller in response to the loading into the bit register of an output signal from the host controller (Molloy 12:15-30).

Regarding claim 30, wherein the devices are associated with a single gaming machine (Gomez 4:50-60).

Regarding claims 31 and 34-36, see rejections of claims 13, 17, 19, 24 and 31 above.

Response to Arguments

Applicant's arguments with respect to claims 13, 14, 16-22, 24, 27-32 and 34-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dat T. Nguyen whose telephone number is (571) 272-2178. The examiner can normally be reached on M-F 8am-5pm.

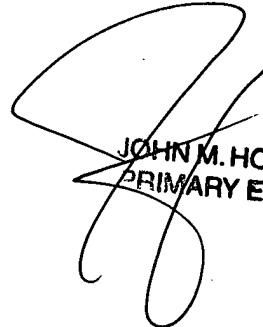
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
09/814,638
Art Unit: 3714

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dat Nguyen



JOHN M. HOTALING, II
PRIMARY EXAMINER